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LLNL-TR-498734

Weekly NIF Progress Report; Summary of NIF System Shots for the Week of July 10 - July 16, 2011

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September 12, 2011

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This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.



Weekly NIF Progress Report
Summary of NIF System Shots for the Week of July 10 – July 16, 2011

During the week, the Facility Maintenance and Reconfiguration period was completed and four system shots were conducted on NIF. The table below provides a breakdown of the system shots.

Shot Type	Goal	# Shots
System shots with targets	Stockpile Stewardship Program	
	National Ignition Campaign (NIC)	0
	High Energy Density Stewardship Science (HEDSS)	0
	Other NIF Missions	
	Other National Security	0
	University Use/Fundamental Science	0
Total, with targets		0
	Laser Performance	4
Total, without targets		4
Total system shots		4

System Shots without Targets:

- ***LPOM Model calibration (1 shot):*** One 8 bundle sequential system shot was fired to the roving calorimeter to calibrate the main laser model of the Laser Performance Operations Model (LPOM)
- ***Laser Performance Campaign (3 shots):*** Three shots were fired to test optics performance for different Wedge Focus Lens (WFL) conditions on Q43B, Q44B and Q26T

July Type 3 Facility Maintenance and Reconfiguration is completed:

- **Facility capability upgrades:**
 - Completed regression test of Version 8.4 of the Integrated Computer Control System software (ICCS 8.4) that adds new functionality and improves shot reliability, including real time countdown response to primary, secondary and tertiary bundle designation
 - Completed five regression test rod shots and two regression test system shots to validate the capability of ICCS Version 8.4
 - Completed installation of the facility infrastructure needed for the Streaked Polar Instrumentation for Diagnosing Energetic Radiation (SPIDER) diagnostic adjacent to the Polar Diagnostic Instrument Manipulator (DIM)
 - Completed initial provisions for connecting an external tritium fill system to the cryogenic target positioner (CryoTarpos) to supply higher purity fuel in situ



- Completed reinstallation and re-commissioning of target alignment system (TAS) at target chamber center (TCC) with an active target
- **Facility reliability upgrades:**
 - Completed preamplifier module (PAM) Tab3 beam shaping aperture reinstallation on 46 quads, including recommissioning shots
 - Completed target diagnostics timing zone redistribution
- **Facility reconfiguration:**
 - Completed the removal of 16 continuous phase plates (CPP) in the 1ω section and installation of 16 CCPs in the 2ω section for higher power operation
- **Facility maintenance activities:**
 - Performed successful annual T-1 shroud opening test for CryoTarpos
 - Completed reinstallation and recommissioning of bundle B33 Cavity Spatial Filter (CSF) pinhole tower line replaceable unit (LRU)
 - Completed extensive maintenance on information technology (IT) systems and control system hardware, network switches and database servers
 - Completed replacement of an alignment laser in Laser Bay 1 (LB1); updated camera and attenuator set-points
 - Completed refurbishment, installation, and recommissioning of transport mirror LRUs for quads Q14T, Q13T and Q12T
 - Completed re-measurement of the static X-ray imager (SXI-L) kinematic mount, snout and camera removal and reinstallation, and snout realignment
 - Completed Heating, Ventilation, and Air Conditioning (HVAC), Argon and Liquid Nitrogen Pad maintenance activities
 - Completed refilling of the beam path for Clusters 1 and 2 with argon